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(54) Title: SHEET MATERIAL INFILTRATION OF POWDER METAL PARTS

(57) Abstract: A powder metal part infiltration process uses a stamped metallic sheet as a source of metal for infiltration to achieve a high strength powder metal part. A powder metal is compacted, and an infiltrant blank is formed from a wrought metal sheet. The infiltrant blank is placed on top of the compact, and the compact is sintered at a temperature sufficient to form a sintered compact with a matrix having pores and to melt the wrought metal such that the melted wrought metal infiltrates the pores of the matrix. The infiltrant blank may be formed with a locating element for engaging a corresponding locating element on the compact to improve positioning of the blank on the compact. Also, the compact may be separately sintered, and the infiltrant blank may then be placed on the sintered compact. The wrought metal is then melted such that the melted wrought metal infiltrates the pores of the matrix.

WO 2005/077571 A1